

Application No. 09/684,064
Amendment Dated March 30, 2007
Reply to Office Action of January 23, 2007

REMARKS

Applicant respectfully requests further examination and reconsideration in view of the above amendments and the arguments set forth below. In the Office Action mailed January 23, 2007, claims 1-4, 6-29 and 31 have been rejected. In response, the Applicant has amended claims 1, 6 and 25, and submitted the following remarks. Accordingly, claims 1-4, 6 - 29 and 31 are still pending. Favorable reconsideration is respectfully requested in view of the amended claim and the remarks below.

Rejections Under 35 U.S.C. §102

Claims 1-4, 6-29 and 31 have been rejected under 35 U.S.C. §102(e) as being unpatentable over U.S. Patent No. 6,230,048 to Selvester et al (hereinafter Selvester). The Applicant respectfully disagrees with this rejection.

In contrast to the teachings of Selvester, the method and system of the present invention interprets and correlates by measuring the collected physiological data, analyzing numerous characteristics such as wave form height, distance between peaks, and extracting various features of the wave form. The interpretation module then uses the measured features to generate a separate interpretation of the physiological data [present invention, page 5, lines 19-28]. The present invention does not merely create a wave form, but rather extracts features of the waveform to be compared with features of **previously interpreted** physiological data.

Selvester teaches a computer-based electrocardio interpretation system and method wherein subject specific ECG data is interpreted in accordance with a set of interpretation rules to identify the presence, and certain characteristics, of various selected heart conditions. Selvester also does not teach utilizing an interpretation module **to generate a separate interpretation** of the physiological data collected from the patient. The Selvester reference is focused on generating an interactive display based on computerized ECG. The Selvester reference first assumes that the computerized ECG has information that needs to be visualized as a pictorial image of the heart. The user can then interact with this pictorial to add more information or to consider information linked to this image.

Within the Office Action it is stated that the Selvester reference teaches comparing the separating interpretation from the physiological data to a set of known patterns in column 16, lines 14-21. However, the Selvester reference indicates in column 15, lines 22-26, that "...what is shown in Figure 5c illustrates a way of generating the various rule sets that are contained within block 50 (Figure 4). The rule creation process is now described in relation to creating a single rule set (score card), and is as follows..." In short, referring to the abstract, the Selvester reference includes interpreting subject specific ECG data in accordance with a set of interpretation rules to identify the presence, and certain characteristics, of various selected heart conditions. The passages in column 15 and 16 simply teach the method of generating these rule sets, but do not teach correlating separate interpretations of ECG data to one or more of physiological data records in a library of the same.

As stated previously, the method and system of the present invention interprets and correlates by measuring the collected physiological data, and extracting various features of the waveform. The invention then compares these extracted features from previously interpreted physiological data. The present invention starts with the premise of not trusting the computerized ECG interpretation, and rather finds an ECG that matches the acquired ECG from a set of ECGs in an expert library. If there is a match, then the documentation associated with that match is followed. The teachings of the Selvester reference simply analyze a set of ECG data in accordance with a set of rules.

The amended independent claim 1 is a method of providing real time decision support in the review of physiological data comprising establishing a library of interpreted physiological data records, gathering of physiological data, interpreting the physiological data based on a predetermined set of criteria such that a separate interpretation is generated, wherein the interpreting step includes measuring the physiological data, analyzing a set of characteristics associated with the physiological data, extracting one or more patterns from the physiological data to generate the separate interpretation and comparing the separate interpretation from the physiological data to a set of known patterns from the library, correlating the separate interpretation to one or more of the physiological data records in the

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library of physiological data records and displaying the separate interpretation in the correlated physiological data records on a display. The amendment to claim 1 has been made for clarification purposes. As discussed above, Selvester, does not teach comparing the separate interpretation from the physiological data to a set of known patterns from the library, correlating the separate interpretation to one or more of the physiological data records in the library of physiological data records. For at least these reasons, claim 1 is allowable over the teachings of Selvester.

Claims 2-4 and 6-9 are all dependent upon the independent claim 1. As discussed above, the independent claim 1 is allowable over the teachings of Selvester. Accordingly, the dependent claims 2-4 and 6-9 are all also allowable as being dependent upon an allowable base claim.

The amended independent claim 10 is directed to a physiological data interpretation system comprising a library of physiological data records, a physiological data acquisition device capable of acquiring physiological data and coupled to the library of physiological data records, the acquisition device having an interpretation module to generate a separate interpretation of the physiological data and a correlation module to compare the separate interpretation to the records in the library of physiological records and determine a set of correlated data records, wherein the interpreting step includes measuring the physiological data, analyzing a set of characteristics associated with the physiological data, extracting one or more patterns from the physiological data to generate the separate interpretation, and comparing the extracted patterns from the physiological data to a set of known patterns and an output device coupled to the acquisition device that displays the interpretation and the correlated physiological data records. As discussed above, Selvester does not teach a correlation module. For at least these reasons, the independent claim 10 is allowable over the teachings of Selvester.

Claims 11-24 are dependent upon the independent claim 10. As discussed above, the independent claim 10 is allowable over the teachings of Selvester. Accordingly, the dependent claims 11-24 are all also allowable as being dependent upon an allowable base claim.

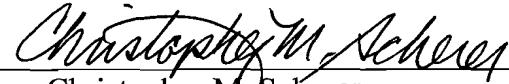
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The amended independent claim 25 is directed to a method of interpreting physiological data. The Applicant respectfully submits that the independent claim 25 is allowable for substantially the same reasons as the independent claim 1 is allowable as discussed above. Claims 26-29 and 31 are all dependent upon the independent claim 25. As discussed above, the independent claim 25 is allowable over the teachings of Selvester. Accordingly, the dependent claims 26-29 and 31 are all allowable as being dependent upon an allowable base claim.

For the reasons given above, Applicant respectfully submits that the claims are now in condition for allowance, and allowance at an early date would be appreciated. Should the Examiner have any questions or comments, they are encouraged to call the undersigned at 414-271-7590 to discuss the same so that any outstanding issues can be expeditiously resolved.

Respectfully submitted,

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